1.6.6 Embodied Energy of Interior Wall Assemblies in the U.S.,

Interior Wall Type (3)	Embodied Energy (MMBtu/SF) (1)	CO2 Equivalent Emissions (lbs/SF)
Wood stud (16" OC) + gypsum board	0.03	2.49
Wood stud (24" OC) + gypsum board	0.03	2.42
Wood stud (24" OC) + 2 gypsum boards (4)	0.05	4.08
Steel stud (24" OC) + 2 gypsum boards (4)	0.05	4.84
6" Concrete block + gypsum board	0.11	15.89
6" Concrete block	0.09	14.22
Clay brick (4") unpainted	0.11	13.37

Note(s): Assumptions: Values are general estimations for the U.S. 60 year building lifetime. Low rise building. 1) Embodied Energy: Energy use includes extraction, processing, transportation, construction, and disposal of each material. 2) Resource Use: The weight of raw materials used in extraction, processing, transportation, construction and disposal of each material. 3) All interior walls include latex paint on each side unless noted otherwise. 4) Rounding obscures difference in embodied energy figure: wood stud wall is 7% lower than steel stud wall.

Source(s): Athena Institute, Athena EcoCalculator for Assemblies v.2.3, 2007, Available at www.athenasmi.org/tools/ecoCalculator/index.html